REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

Claims 1-2, 5-7, 9, and 20-29 are pending in the present application. Claims 25-27 were previously withdrawn. Claim 21 has been amended to correct a typographical error. In particular the term "or" has been inserted between elements 3 and 4 of claim 21. Support for the amendment can be found throughout the present application. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

Rejection of claims 5 and 6 under 35 U.S.C. §102(a) -- Pavlinkova et al

At pages 5-6 of the Office Action, the Examiner rejects claims 5 and 6 under 35 U.S.C. §102(a) as being anticipated by Pavlinkova et al. (PEPTIDES 24:353-362 (March, 2003)). This rejection is respectfully traversed.

A certified English translation of Japanese priority application JP 2002-210067 filed on July 18, 2002, is submitted with this response. As can be seen, the claims as pending are fully supported in the priority application. Accordingly, the claimed subject matter is entitled to the Japanese priority filing date of July 18, 2002. As the priority filing date of July 18, 2002 pre-dates Pavlinkova et al., Pavlinkova et al. is not prior art under 35 U.S.C. §102.

Accordingly, this rejection should be withdrawn.

Objection to claim 21 – Formalities

At page 6 of the Office Action, the Examiner states that claim 21 is objected to because the claim fails to indicate whether the antibodies for each of elements 1-4 are in the alternative or

inclusive. The Examiner states that the term "and" or "or" should be inserted between elements 3 and 4 of the claim.

As suggested by the Examiner, the term "or" has been inserted between elements 3 and 4 in claim 21.

Accordingly, this objection should be withdrawn.

Rejection of claims 1, 2, and 7 under 35 U.S.C. §103(a) -- Sibler et al., as evidenced by Weiss et al., in view of Pavlinkova et al.

At pages 7-10 of the Office Action, the Examiner rejects claims 1, 2, and 7 under 35 U.S.C. §103(a) as being unpatentable over Sibler et al. (J. IMMUNOL. METHODS 224: 129-140 (1999)) as evidenced by Weiss et al. (PROT. EXPRESS. PURIF. 5(5): 5098-517 (1994)) and in view of Pavlinkova et al. (PEPTIDES 24:353-362 (March, 2003). The Examiner states that Sibler et al. teaches a plasmid vector which permits production of in vivo biotinylated binding fragments of antibodies (Fab) in bacterial cells. The antibodies, according to the Examiner, comprise VH-CH1, Vk-Ck, and a BCCP domain (biotin carboxy carrier protein). The Examiner acknowledges that Sibler et al. does not disclose single chain antibodies being directly crosslinked with a linker where the BCCP domain is integrated into the structure. The Examiner asserts that Pavlinkova et al. overcomes this deficiency. The Examiner states that the ordinary artisan could have modified the scfv of Pavlinkova et al. by introducing the BCCP domain of Sibler et al. into the construct. This rejection is respectfully traversed.

As shown above, Pavlinkova et al. is not prior art to the claimed invention. The remaining cited references do not alone, or in combination, teach or suggest the claimed invention as appreciated by the Examiner.

Accordingly, this rejection should be withdrawn.

Rejection of claims 1, 9, and 20 under 35 U.S.C. §103(a) -- Sibler et al., as evidenced by Weiss et al., in view of Pavlinkova et al., and further in view of Fricker et al.

At pages 10-12 of the Office Action, the Examiner rejects claims 1, 9, and 20 under 35 U.S.C. §103(a) as being unpatentable over Sibler et al. (J. IMMUNOL. METHODS 224: 129-140 (1999)) as evidenced by Weiss et al. (PROT. EXPRESS. PURIF. 5(5): 5098-517 (1994)) and in view of Pavlinkova et al. (PEPTIDES 24:353-362 (March, 2003)), and further in view of Fricker et al. (U.S. Patent Application Publication No. 2004/0265902). The Examiner acknowledges that Sibler et al., Weiss et al., and Pavlinkova et al. do not alone or in combination, teach or suggest expressing the antibody protein in a cell-free wheat based protein translation system. The Examiner states, however, that Fricker et al. describes producing a multimeric scFv complex under these conditions. The Examiner states that one skilled in the art would have been motivated to modify the antibodies of Sibler et al. or Pavlinkova et al. to have been expressed in a wheat embryo-derived system in order to obtain a homogeneous, exogenous cell-free scFv isolate. This rejection is respectfully traversed.

As discussed previously, Pavlinkova et al. is not prior art to the claimed invention. The remaining cited references do not alone, or in combination, teach or suggest the claimed invention as appreciated by the Examiner.

Accordingly, this rejection should be withdrawn.

Rejection of claims 21-24 under 35 U.S.C. §103(a) -- Sibler et al., as evidenced by Weiss et al., in view of Pavlinkova et al.

At pages 13-16 of the Office Action, the Examiner rejects claims 21-24 under 35 U.S.C.

§103(a) as being unpatentable over Sibler et al. (J. IMMUNOL. METHODS 224: 129-140 (1999)) as evidenced by Weiss et al. (PROT. EXPRESS. PURIF. 5(5): 5098-517 (1994)) and in view of Pavlinkova et al. (PEPTIDES 24:353-362 (March, 2003). The Examiner states that Sibler et al. teaches developing a method for screening in vivo biotinylated anti-human IgGs from two different murine hybridomas. The Examiner acknowledges that Sibler et al. does not disclose single chain antibodies being directly crosslinked with a linker where the BCCP domain is integrated into the structure. The Examiner states, however, that Pavlinkova et al. teaches the immobilized antibody array comprising single chain antibodies comprising a linker and a labeling substance. The Examiner states that the claimed invention would have been obvious in light of the teachings of Sibler et al. as evidenced by Weiss et al. and Pavlinkova et al. This rejection is respectfully traversed.

As discussed previously, Pavlinkova et al. is not prior art to the claimed invention. The remaining cited references do not alone, or in combination, teach or suggest the claimed invention as appreciated by the Examiner.

Accordingly, this rejection should be withdrawn.

Rejection of claims 21 and 28 under 35 U.S.C. §103(a) -- Sibler et al., as evidenced by Weiss et al., in view of Pavlinkova et al., and further in view of Fricker et al.

At pages 16-18 of the Office Action, the Examiner rejects claims 21 and 28 under 35 U.S.C. §103(a) as being unpatentable over Sibler et al. (J. IMMUNOL. METHODS 224: 129-140 (1999)) as evidenced by Weiss et al. (PROT. EXPRESS. PURIF. 5(5): 5098-517 (1994)) and in view of Pavlinkova et al. (PEPTIDES 24:353-362 (March, 2003), and further in view of Fricker et al. (U.S. Patent Application Publication No. 2004/0265902). The Examiner acknowledges that Sibler et al.,

Weiss et al., and Pavlinkova et al. do not describe production methods in a wheat-embryo derived cell-free translation system, as recited in claim 28. The Examiner states that Fricker et al. describes producing probes in cell-free translation systems, including wheat. The Examiner states that one skilled in the art would have been motivated to modify the antibodies of Sibler et al. or Pavlinkova et al. to have been expressed in a wheat embryo-derived system in order to obtain a homogeneous, exogenous cell-free scFv isolate, immobilized on a surface plate. This rejection is respectfully traversed.

As discussed previously, Pavlinkova et al. is not prior art to the claimed invention. The remaining cited references do not alone, or in combination, teach or suggest the claimed invention as appreciated by the Examiner.

Accordingly, this rejection should be withdrawn.

Rejection of claim 29 under 35 U.S.C. §103(a) -- Pavlinkova et al. in view of Fricker et al.

At pages 18-21 of the Office Action, the Examiner rejects claim 29 under 35 U.S.C. §103(a) as being unpatentable over Pavlinkova et al. (PEPTIDES 24:353-362 (March, 2003), in view of Fricker et al. (U.S. Patent Application Publication No. 2004/0265902). The Examiner states that both Pavlinkova et al. and Fricker et al. teach single chain antibodies having peptide linkers or spacers which further comprise or have a labeling molecule. The Examiner states that both Pavlinkova et al. and Fricker et al. teach immobilization of the scFv in a solid plate. The Examiner states that Fricker et al. also describes cell-free translation of the antibodies and expression in wheat. As such, the Examiner states that one in the art could have readily modified the scFv of Pavlinkova et al. to have been expressed in a wheat embryo-derived system in order to obtain a homogeneous, exogenous cell-free scFv isolate. This rejection is respectfully traversed.

As discussed previously, Pavlinkova et al. is not prior art to the claimed invention. The remaining cited references do not alone, or in combination, teach or suggest the claimed invention as appreciated by the Examiner.

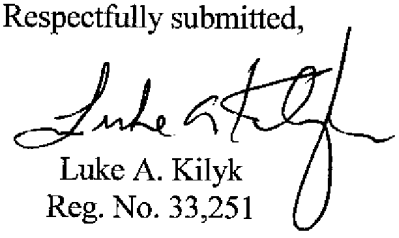
Accordingly, this rejection should be withdrawn.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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